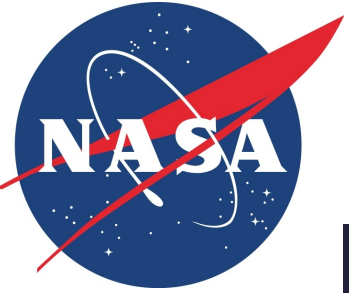


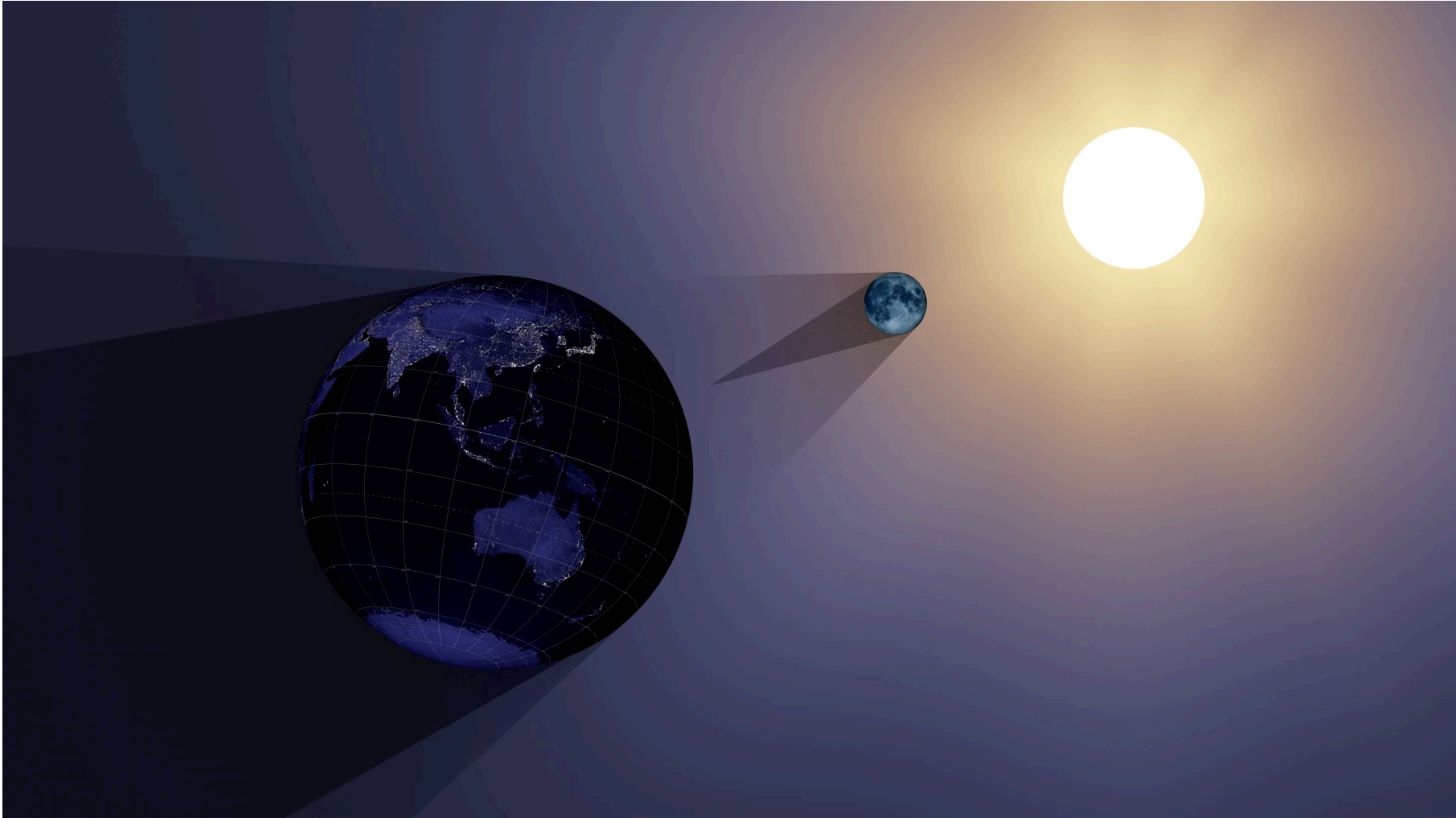
The Great American Eclipse 2017

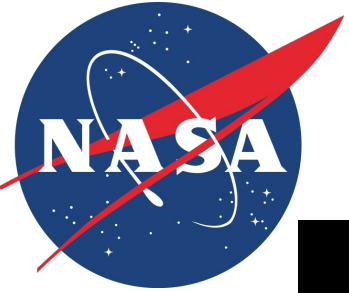
Dr. Renee Weber, NASA Marshall Space Flight Center

Dr. Amy Winebarger, NASA Marshall Space Flight Center

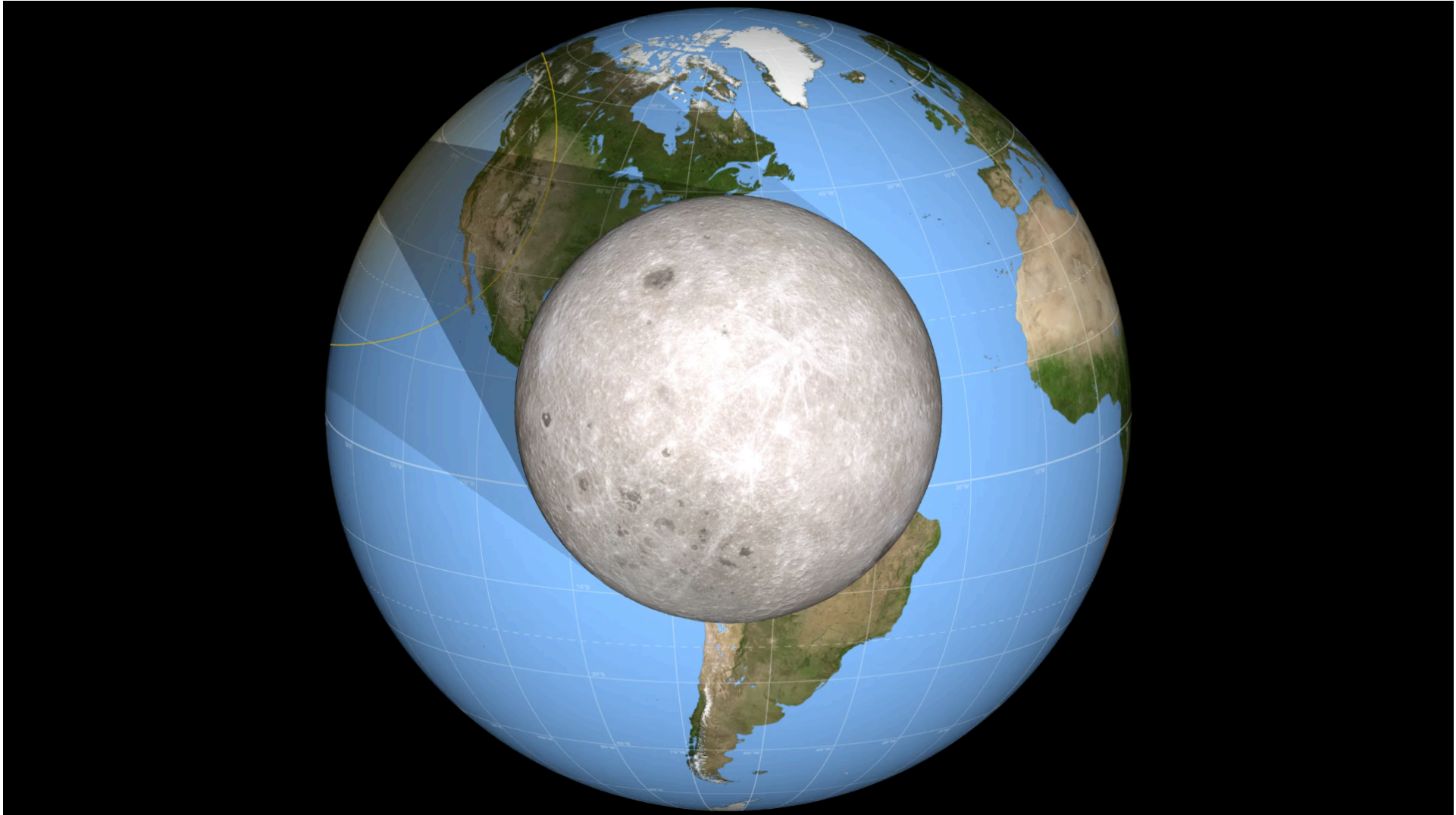


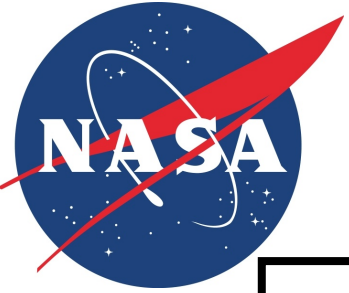
What is an eclipse?





Eclipse from the moon's point of view



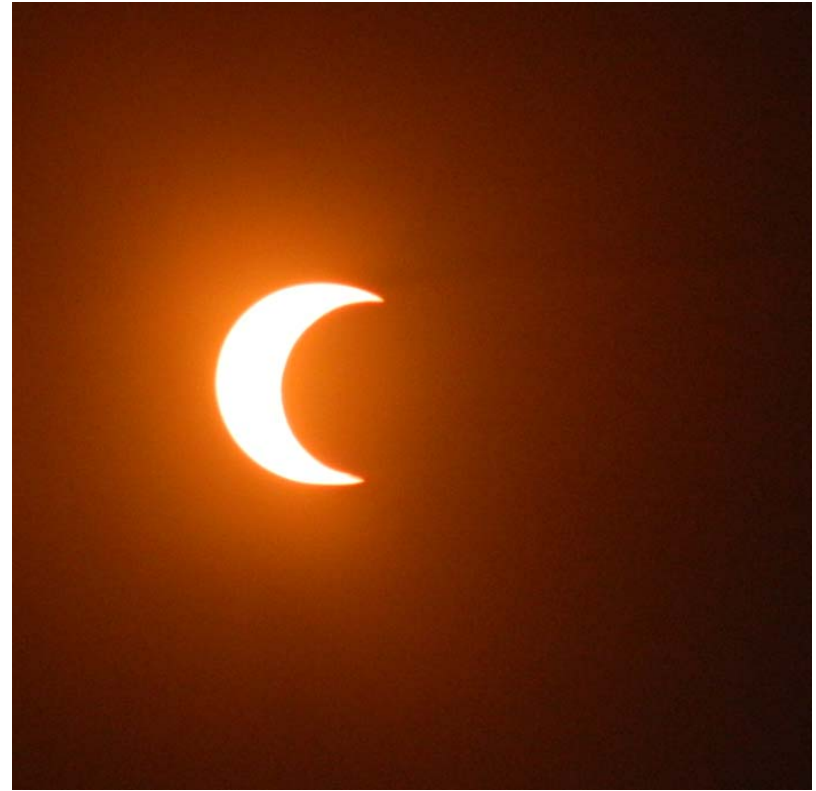


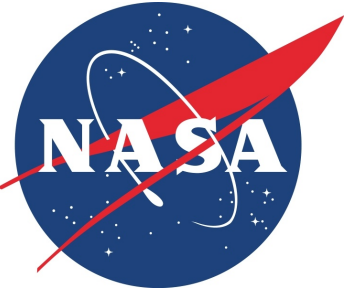
Eclipse definitions

Total solar eclipse – Sun is completely blocked by the moon



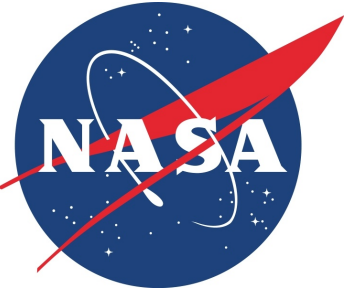
Partial solar eclipse - Sun's disk is partially occulted by moon





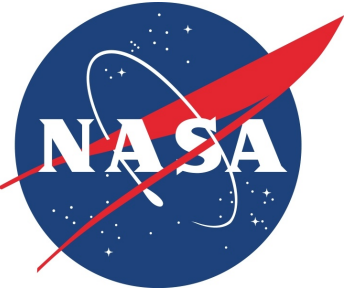
Total solar eclipses are rare!

- Total solar eclipses occur ~ every 18 months somewhere on the earth.
- In a single place on earth, total solar eclipses occur every 375 years.
- Last solar eclipse in Huntsville - Nov 30, 1834
 - Great-great-great grandparents saw it!
- Next solar eclipse in Huntsville - April 14, 2200
 - Great-great-great grandchildren will see it!



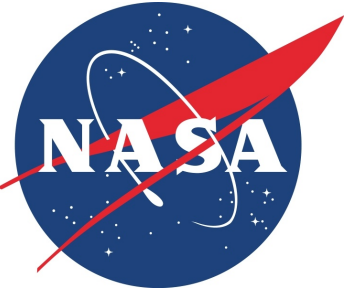
The sun is so big! The moon is so small!

- The sun is 860,000 miles in diameter.
- The moon is 2,165 miles in diameter.
- The sun is 400 times bigger than the moon.
- If the moon is a penny, how big would the sun be?



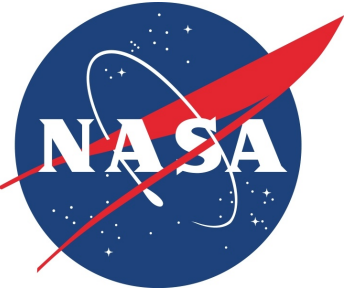
How can something so small block something so big?

- Activity!



Why don't we have a total eclipse every month?

- Activity!



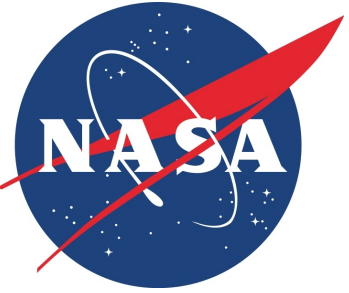
What will you see on eclipse day?

Huntsville will see a partial eclipse on Monday, August 21.

At the peak of the eclipse 97% of the sun will be blocked

- Eclipse starts at 12:00 pm
- Eclipse peaks at 1:30 pm
- Eclipse is over at 3:00 pm





How can you view the eclipse?



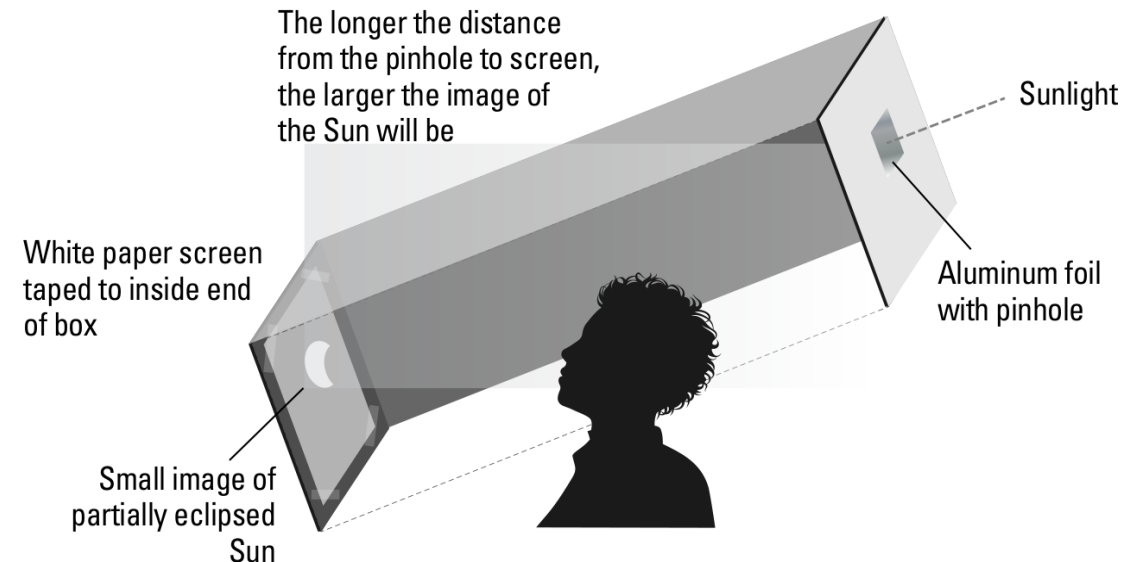
Never look directly at the sun, even during a partial eclipse!

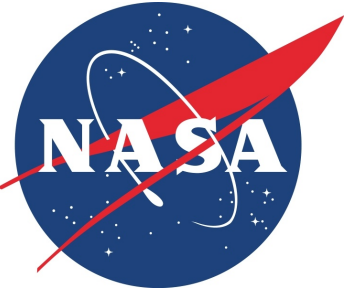
Use approved eclipse glasses

Make an eclipse viewer

Instructions at:

<https://eclipse2017.nasa.gov/>





See the total eclipse

If you can't go to the path of totality, watch the live stream on:

<https://eclipse2017.nasa.gov/eclipse-live-stream>